

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

CHANGZHOU KAIDI
ELECTRICAL CO., LTD., et al.

v.

OKIN AMERICA, INC., et al.

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Civil No. CCB-13-1798

MEMORANDUM

Changzhou Kaidi Electrical Co. and Kaidi, LLC (together, “Kaidi”) seek a declaratory judgment that the KDPT005 linear actuator does not infringe United States Patent Number 5,927,144 (“the ‘144 patent”), which Dewert Okin GmbH owns by assignment and which it and Okin America, Inc. (together, “Okin”) practice via manufacture of the Okin Betadrive linear actuator. Okin, in turn, alleges that the KDPT005 infringes that patent. Okin now moves for summary judgment on its infringement claim, as it has once before. And Kaidi moves for partial summary judgment on the question of willfulness, arguing that its infringement, if any, was not objectively reckless.¹ In addition, both parties have filed many motions in limine, seeking to exclude evidence pertaining to infringement, damages, and other matters. Several of those motions in limine bear on the substance of the parties’ motions for summary judgment. Those motions in limine, along with the related motions for summary judgment, have been fully briefed and no hearing is necessary to their resolution. *See* Local Rule 105.5 (D. Md. 2014). The

¹ Okin also moved for summary judgment on Kaidi’s assertion that certain of the patent’s claims are invalid under 35 U.S.C. § 112. (*See* ECF No. 149.) Kaidi concedes that it “is no longer asserting invalidity” on that theory. (Kaidi Opp. Partial Summ. J. Invalidity 1, ECF No. 155.) Accordingly, the court will grant summary judgment to Okin on the claim that the patent is invalid under 35 U.S.C. § 112.

remaining motions in limine will be resolved separately at a later date.²

For the reasons below, Okin's renewed motion for summary judgment on the question of infringement will be denied, while Kaidi's motion for partial summary judgment of no willfulness will be granted. Okin's related motions in limine to preclude one of Kaidi's witnesses from altering his deposition testimony via Federal Rule of Civil Procedure 30(e)(1), to preclude evidence underlying Kaidi's unfair competition claims, to preclude evidence that Okin withdrew its complaint from the International Trade Commission, and to preclude evidence concerning marking of its Betadrives with patent warnings will all be granted. Okin's motion to preclude Kaidi's expert from testifying as to an interpretation of the patent allegedly inconsistent with this court's claim construction will be granted in part and denied in part, and its motion to preclude Kaidi's expert from testifying as to testing of the accused device allegedly inconsistent with the court's claim construction will be denied. Last, Kaidi's motion to preclude the presentation of evidence concerning willful infringement will be denied as moot.

BACKGROUND

Okin produces and sells linear actuators, including the Okin Betadrive, throughout the United States. (First Am. Compl. 2–3, ECF No. 24; Answer First Am. Compl. 2, ECF No. 34.) Kaidi produces and imports into the United States linear actuators, including the KDPT005. (First Am. Compl. 2; Answer First Am. Compl. 2.) Okin asserts ownership of the '144 patent, which it allegedly practices via the manufacture and sale of its Betadrive. (First Am. Compl. 5; Answer First Am. Compl. 3.) Okin contends that Kaidi's KDPT005 infringes claim 1 of the '144 patent and one or more of the patent's other claims, each of which depends on claim 1.

² The court has reserved May 6, 2015, for a motions hearing, if the court concludes that oral argument will facilitate review of the remaining motions in limine. (See Order, ECF No. 204.) The court will notify the parties before that date if such argument is needed.

(Counterclaim 18–19, ECF No. 34.) Kaidi, in turn, seeks a declaratory judgment that its KDPT005 infringes no valid and enforceable claim of the ‘144 patent, among other causes of action. (First Am. Compl. 8–9.)

Claim 1 of the ‘144 patent, which is incorporated by reference into claims 2 and 26–28, describes a “guide section” that, among other things, surrounds the actuator’s spindle. *See* Patent ‘144 col.6 ll.13–28. After a hearing pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), this court previously issued a memorandum and order construing components of the claims contained in the ‘144 patent. (ECF Nos. 63, 64.) It construed the “guide section” as a “two-part component that guides a moving part.” (Mem. 5, ECF No. 63.) Okin identifies two parallel metal components surrounding the KDPT005’s spindle as the requisite two parts of the device’s guide section, highlighting the apparent similarity between those components and drawings of the embodiment of the patented invention disclosed in the patent’s specification. Kaidi, however, asserts that the alleged “guide section” of its KDPT005 includes only one component that guides the slider incorporated into that device; it describes the remaining component identified by Okin as a “spindle cover.” In a previous motion for summary judgment, Kaidi asserted that the KDPT005’s spindle cover is “designed to prevent grease from dripping from the spindle and to achieve a decorative effect, not to guide a moving part along a linear path.” (Kaidi Cross-Mot. Partial Summ. J. 6, ECF No. 77-1.) Accordingly, Kaidi concludes, the KDPT005 lacks one of the requisite two parts that make up the patented “guide section” and thus lies beyond the claim’s limitations.

The parties previously described their positions on the question of infringement in cross motions for summary judgment, both of which the court largely denied. (*See* Order, ECF No.

98.)³ Now, after the completion of expert discovery, the parties have moved again for summary judgment and filed a host of motions of limine.

ANALYSIS

I. Motions In Limine

A motion in limine seeks “to exclude anticipated prejudicial evidence before the evidence is actually offered.” *Luce v. United States*, 469 U.S. 38, 40 n.2 (1984). Such motions are “designed to narrow the evidentiary issues for trial and to eliminate unnecessary trial interruptions.” *Louzon v. Ford Motor Co.*, 718 F.3d 556, 561 (6th Cir. 2013) (quoting *Bradley v. Pittsburgh Bd. of Educ.*, 913 F.3d 1064, 1069 (3d Cir. 1990)). Okin seeks to strike from the record and exclude from trial an errata sheet submitted by a Kaidi engineer, Genxing Zhu, to alter his deposition testimony. (ECF No. 131.) And it moves to prohibit Kaidi’s expert, Dr. William Howard, from explaining to the jury his understanding of the patent, which is allegedly inconsistent with this court’s prior claim construction, and from presenting the results of experiments allegedly premised on that inconsistent interpretation of the patent. (ECF Nos. 133, 144.)⁴

A. Zhu’s Errata Sheet

Okin moves to strike from the record and preclude testimony concerning an errata sheet that Genxing Zhu submitted after his deposition in an effort to alter his testimony. That motion will be granted.

³ The court granted Kaidi summary judgment as to the alleged infringement of claim 2 of the ‘144 patent on the ground that Okin had expressly abandoned any argument that Kaidi infringed that claim in light of the court’s claim construction. (See Order; Mem. 1 n.1, ECF No. 97.)

⁴ Several other motions in limine are affected by the court’s grant of summary judgment on the question of willfulness. Those motions in limine will be addressed in parallel with that motion for summary judgment. See *infra* Part II.B.

Zhu is the Kaidi engineer who spearheaded the development of the KDPT005. (*See* Mot. In Limine Concerning Zhu's Errata Sheet Ex. 2, Interrogatory Response 24, at 23, ECF No. 190-1.) He is a Mandarin speaker who does not speak English and had never before been deposed. (*See* Zhu Tr. 9:19–21, 11:4–7.) Kaidi represents that he testified at his deposition with the assistance of two translators. (*See* Opp. Mot. In Limine Concerning Zhu's Errata Sheet 2, ECF No. 166.)

During Zhu's deposition, Okin's counsel asked Zhu about the function of the metal component of the KDPT005 that Kaidi describes as a "spindle cover" in this litigation, but that Zhu and Okin's counsel sometimes referred to as "guide rail A" during Zhu's deposition. (*See, e.g.,* Zhu Tr. 249:8, 250:19, 12/6/14.)⁵ After labelling by hand a photograph of the KDPT005, which was marked as Exhibit 12, Zhu indicated that "[g]uide rail A, the cover here can prevent the slider from moving toward the Y minus direction." (*Id.* at 250:19–21.) According to the marked-up reproduction of Exhibit 12 included in Okin's motion, the "Y minus direction" is away from the component that Kaidi describes as a guide rail; movement in the y-plus direction is directly toward that guide rail. (*See* Mot. In Limine Concerning Zhu's Errata Sheet 2.) Zhu indicated that the putative spindle cover "does not prevent the slider from moving to the other direction of the Y axis," presumably in reference to the y-plus direction, or toward the guide rail. (Zhu Tr. 250:5–6, 12/6/14.)

Roughly five weeks after that deposition, Zhu sought to change his testimony by submitting a signed errata sheet pursuant to Federal Rule of Civil Procedure 30(e)(1). In it, he explained:

The question was unclear and confusing about whether it was referring to just the

⁵ During his deposition, Zhu also indicated that the component in question "is not called guide rail A. It is the cover." (*Id.* at 251:5–6.)

cover or the cover in combination with the guide. In theory, without the guide, the slider may potentially touch the cover if there is a sufficiently large force in the Y minus direction, but in practice with the guide in place, the cover does not restrict movement of the slider in the minus Y direction because the guide restricts movement in that direction first. With the guide in place, the cover does not affect the movement of the slider and the slider will function the same without the cover.

(See Second Nese Decl. Ex. H, Errata Sheet, ECF No. 177-5.)⁶

Federal Rule of Civil Procedure 30(e)(1) permits a deponent to “review the transcript” and “if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.” Authority is divided on the permissible scope of such alterations. While “[s]ome courts have determined that the rule places no limitation on changes,” others “have determined that the rule permits changes of substance only to the extent the proposed alteration is consistent with the deponent’s testimony.” *EBC*, 618 F.3d at 267; *see also id.* at 267 nn.14 & 15. The Fourth Circuit has not opined on the appropriate standard. *See, e.g., Harden v. Wicomico Cnty.*, 263 F.R.D. 304, 307 (D. Md. 2009) (noting the absence of “controlling authority in the Fourth Circuit”). But “[r]ecent decisions of this Court have adhered to the latter approach,” forbidding changes that contradict a deponent’s previous testimony. *Lane v. Sys. Application & Techs., Inc.*, Civ. No. DKC-13-3566, 2015 WL 1013449, at *3 (D. Md. Mar. 6, 2015) (quoting *Md. Elec. Indus. Health Fund v. MESCO, Inc.*, Civ. No. ELH-12-505, 2014 WL 853237, at *16 (D. Md. Feb. 28, 2014)).⁷ “[A] growing minority” of courts endorses this interpretation, *Harden*, 263 F.R.D. at 308, including most recently the Third Circuit, *see EBC*,

⁶ Zhu submitted substantively identical corrections to two of his responses: his statement that the cover “can help prevent the slider from moving toward the Y minus direction” and his statement that “[i]t does not prevent the slider from moving to the other direction of the Y axis.” (See Zhu Tr. 250:5–6, 19–21, 12/6/15.)

⁷ Unpublished opinions are cited for the soundness of their reasoning, not for any precedential value.

618 F.3d at 268.⁸

Here, Zhu’s proposed alterations directly contradict his sworn testimony without an adequate explanation for that reversal. Although Zhu testified that the spindle cover can restrict the slider’s movement in one direction, he now seeks to amend that answer as merely theoretical in light of the presence of the guide rail. (*Compare* Zhu Tr. 250:5–6, 19–21, 12/6/14, *with* Errata Sheet.) By way of explanation, he emphasizes that the question did not specify whether the spindle cover could impose such a restriction independently or “in combination with the guide[rail].” (Errata Sheet.) The question presented to him forecloses that explanation. Zhu was asked whether the spindle cover could “*help* prevent the slider from shifting in the Y direction?” (Zhu Tr. 249:8–9, 12/6/14 (emphasis added).) That formulation necessarily implies that any restriction imposed by the cover need not be independent but may be in aid of another component also limiting the slider’s range of motion. Moreover, the deposition exhibit to which Zhu referred in answering the question depicted both the KDPT005 guide rail and its spindle cover, further implying that his answer referred to the operation of the fully assembled device.

Kaidi retorts that Zhu’s language skills and inexperience render his confusion reasonable. But that linguistic objection does not respond to the implications of the exhibit, which depicted an *image* of the fully assembled device to which Zhu referred in answering the question. And although the limited record presented here confirms that Zhu could not speak English and had never before been deposed, it otherwise highlights Zhu’s semantic competence. Zhu rejected the propriety of counsel’s question, offering a more sophisticated variant of it that nonetheless

⁸ The Third Circuit adopted a slightly more nuanced approach, condoning a district court’s discretionary “refus[al] to consider proposed substantive changes that materially contradict prior deposition testimony if the party proffering the changes fails to provide sufficient justification.” *Id.* at 268. By the same token, it reasoned that a district court might, in its discretion, permit such modification “as the circumstances may warrant,” emphasizing that it would not “prescribe a one-size-fits-all rule.” *Id.* at 268, 270.

repeated the “help prevent” formulation counsel had initially offered. “The way you put it was not quite correct,” Zhu explained during his deposition. (Zhu Tr. 249:21–22, 12/6/14.) “When you said does guide rail A *help prevent* the slider from moving in the Y direction, it only *help preventing* the slider from moving in one direction along the Y axis. It does not prevent the slider from moving to the other direction of the Y axis.” (*Id.* at 249:22– 250:6 (emphases added).) Zhu’s modification of the question indicates that he understood it at a high level of sophistication. Kaidi offers no reason to believe that he did not also understand the implications of the “help prevent” formulation that counsel initially presented to him and that he dutifully repeated.

What little else of the transcript is included in the record further confirms Zhu’s semantic sophistication. Moments after answering his own, reformulated question, Zhu corrected the language he and counsel had used to describe the component in question. “[I]t is not called guide rail A,” he admonished counsel. “It is the cover.” (Zhu Tr. 251:5–6, 12/6/14.) And although Zhu appears to have testified on technical engineering matters over the course of at least two days, his only corrections to the record are the modifications discussed here. If Zhu’s translators were not up to the task of explaining counsel’s questions to him, as Kaidi’s argument now implies, then one would expect a far greater measure of confusion and correction.

For these reasons, the court will strike Zhu’s errata sheet and prohibit Kaidi from relying on that sheet at trial.⁹

⁹ Other secondary considerations reinforce the propriety of that conclusion, although the court’s decision does not rely on any of them, either alone or in combination. First, striking the errata sheet will do little to prejudice Kaidi. After all, “the fact that [Zhu’s] original answer stands will not prevent [Zhu] from offering an explanation at trial to explain or otherwise mitigate the effects of his answer.” *Harden*, 263 F.R.D. at 309. Nor will the court grant Okin summary judgment on the basis of Zhu’s unmodified deposition testimony, as explained below. *See infra* Part II.A. By contrast, approving Zhu’s alteration of his testimony would probably require reopening discovery to permit Okin to depose Zhu anew. *See Harden*, 263 F.R.D. at 308. Such an outcome would not only “unnecessarily

B. Howard's Testimony

Okin asserts that Kaidi's expert, Dr. William Howard, has produced an expert report premised on an understanding of the patent inconsistent with this court's previous construction of the phrases "guide section" and "two parts" in claim 1. Accordingly, Okin moves to preclude Howard from presenting to the jury any opinion allegedly inconsistent with the court's construction of the patent, (*see* Mot. In Limine Concerning Howard's Op. 6, ECF No. 144), or from presenting evidence allegedly inconsistent with that construction, including the results of certain experiments Howard performed on the KDPT005, (*see* Mot. In Limine Concerning Howard's Testing, ECF No. 133).

"[T]he construction of a patent, including terms of art within its claim,' is not for a jury but 'exclusively' for 'the court' to determine." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct 831, 835 (2015) (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996)). Consistent with that rule, "[n]o party may contradict the court's construction to a jury," perhaps for fear of sowing confusion. *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1321 (Fed. Cir. 2009); *see also* Fed. R. Evid. 403. Indeed, the risk of such confusion makes it "improper" for an expert to "opine on claim construction before the jury even when . . . the district court makes it clear to the jury that the district court's claim constructions control." *CytoLogix Corp. v. Ventana Med. Sys., Inc.*, 424 F.3d 1168, 1172 (Fed. Cir. 2005).

But those rules do not preclude *all* expert testimony on the meaning of the patent. "[I]f the district court has not yet construed the claims," for example, "testifying experts *must* make clear the claim construction that they have assumed in their testimony." *Id.* at 1172 n.4 (emphasis added). And a similar rule authorizes testimony—but not argument—as to the

protract discovery," *Wyeth v. Lupin, Ltd.*, 252 F.R.D. 295, 297 (D. Md. 2008), but also might delay the pending trial, which has already been scheduled.

meaning of a term where the parties have not sought judicial interpretation of that term during the claim construction process. *See, e.g., MediaTek Inc. v. Freescale Semiconductor, Inc.*, Civ. No. YGR-11-5341, 2014 WL 971765, at *4 (N.D. Cal. Mar. 5, 2014).¹⁰

Here, the court has construed several terms in the claims, two of which are pertinent to Okin's motions. First, the court interpreted "guide section" in claim 1 to mean a "two-part component that guides a moving part," relying exclusively on the claim language without recourse to any extrinsic evidence. (Mem. 6, ECF No. 63.) Kaidi had argued that the phrase refers to a "component that directs and supports a moving part." (*Id.* at 5.) The court rejected that alternative definition, reasoning that "guides" and "directs" are synonyms and that the intrinsic evidence provides no basis for reading "supports" into a phrase otherwise inconsistent with that word. (*See id.* at 5–6.) Second, the court interpreted "two parts" to mean, "quite simply, two parts." (*Id.* at 9.) In doing so, the court rejected Kaidi's alternative gloss on that phrase, including its argument that both parts "hav[e] the same type of material, and substantially the same contour cross-sectional shape and contour cross-sectional thickness." (*Id.* at 8–9.)

Howard's understanding of the patent is partially consistent with the court's construction of its terms. As he explains in his expert rebuttal report:

to perform the act of guiding, a guide section must prevent movement of the slider in five degrees of freedom. . . . Put more simply, to be part of the claimed guide section, a component must work independently or in conjunction with the spindle and/or the other part of the guide section to prevent motion in five of the six degrees of freedom (all motion other than translation along [a specific] axis).

(Nese Decl. Ex. E, Howard Rebuttal Report ¶¶ 90–91, ECF No. 177-2.) That understanding

¹⁰ That latter rule derives from the observation that "district courts are not . . . required to construe *every* limitation present in a patent's asserted claims." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008). They need only intervene "[w]hen the parties present a fundamental dispute regarding the scope of a claim term" *Id.*

derives from a gloss on the word “guide,” which this court has not interpreted on its own.

Because Howard’s emphasis on restriction in five of the six degrees of freedom is a gloss on the word “guide,” which the court has not construed, it is not inconsistent with the court’s interpretation of the patent. Accordingly, he may make clear to the jury his understanding of the term in his testimony.

Other components of Howard’s definition of “guide section,” however, depart from the court’s construction of that phrase. Specifically, he asserts that “each of the two parts of the guide section must be normally functional, remain in contact with the slider/adjuster, and perform the action of guiding at all times.” (Howard Rebuttal Report ¶ 88.) The court specifically rejected that interpretation in its memorandum on claim construction. It refused to endorse Kaidi’s understanding of the words “adjuster” or “slider” to mean that such a piece “is in continuous contact with the guide section as it moves.” (Mem. 7, ECF No. 63.) Although that conclusion arose in an interpretation of the terms “adjuster” or “slider,” it is just as applicable to the meaning of “guide section,” to which it necessarily relates. The patent does not indicate that the adjuster/slider continuously touches the guide section while in motion, whether that determination is couched as a gloss on the “adjuster/slider” or the “guide section.” Accordingly, Howard may not testify as to his contrary understanding at trial.

As noted, Okin also seeks to prevent Howard from presenting the results of several tests he conducted on the KDPT005, arguing they were premised on an inaccurate understanding of the court’s claim construction. Howard performed a series of experiments on the KDPT005 that assessed the device’s performance with both the guide rail and the spindle cover, with only the guide rail, and with only the spindle cover. Because KDPT005 performed acceptably with the

guide rail (with or without the spindle cover), but did not function correctly with only the spindle cover, Howard concludes that the spindle cover does not participate in guiding the slider. (*See, e.g.,* Howard Report ¶¶ 161–62.)

Okin argues that Howard’s tests are inconsistent with this court’s reasoning in its denial of the parties’ previous dispositive motions. In those proceedings, Kaidi offered uncontested evidence of similar testing of the device as a basis for summary judgment in its favor, arguing that the ability of the guide rail to independently guide the slider, combined with the inability of spindle cover to do so, demonstrate that the KDPT005 included a one-part guide section. The court rejected Kaidi’s argument, reasoning that,

[e]ven if the spindle cover were neither necessary nor sufficient to the slider’s operation, it would not establish that the spindle cover does not participate in guiding the slider. That is, even if each part of the two-part guide section must guide a moving part, the patent does not require that each of those parts provides such guidance *independent* of the other.

(Mem. 6–7, ECF No. 97.) Okin asserts that the same reasoning precludes Kaidi from presenting to the jury experiments that evaluated the spindle cover’s and guide rail’s capacity to guide the slider independently.

Okin dramatically inflates the significance of the court’s previous ruling by ignoring its procedural context. Kaidi’s position on summary judgment implied a narrower definition of the claim’s limitations than the one adopted by the court. Because the court had not construed the claims to require each component of the two-part guide section to guide the slider independent of the other, Kaidi’s uncontested evidence was not *dispositive* as a matter of law, even if it related to the spindle cover’s function. But the operation of the KDPT005 with and without the spindle cover is certainly *probative* of whether that component is one

part of the two-part guide section. In this sense, “the parties’ dispute concerns factual questions relating to the test for infringement and not the legal inquiry of the” meaning of the patent’s limitations. *Lazare Kaplan Int’l Inc. v. Photoscribe Techs., Inc.*, 628 F.3d 1359, 1376 (Fed. Cir. 2010). The persuasiveness of Kaidi’s evidence is thus a question of fact that the jury alone can answer. Accordingly, Kaidi may present evidence of Howard’s experiments, so long as it does not argue the patent requires each part of the guide section to be necessary or sufficient to the device’s operation. Indeed, Kaidi appears to recognize this limitation, emphasizing that Howard agrees with the court “that each part of the two part guide must participate in guiding.” (Opp. Mot. In Limine Concerning Testing 4, ECF No. 158.)

For the reasons above, Okin’s motion to exclude Howard’s opinion testimony will be granted to the extent it seeks to preclude him from opining that each component of the guide section “must be normally functional, remain in contact with the slider/adjuster, and perform the action of guiding at all times.” (Howard Rebuttal Report ¶ 88.) Otherwise, that motion will be denied. Okin’s motion to preclude evidence of Howard’s testing will also be denied.

II. Motions for Summary Judgment

Both parties have filed motions for summary judgment. Okin seeks summary judgment on the question of infringement, renewing on the basis of new evidence a motion that the court previously denied. And Kaidi seeks for the first time partial summary judgment on the question of willfulness, which would preclude Okin’s efforts to secure enhanced damages.

Federal Rule of Civil Procedure 56(a) provides that summary judgment should be

granted “if the movant shows that there is no *genuine* dispute as to any *material* fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a) (emphases added). “A dispute is genuine if ‘a reasonable jury could return a verdict for the nonmoving party.’” *Libertarian Party of Va. v. Judd*, 718 F.3d 308, 313 (4th Cir.) (quoting *Dulaney v. Packaging Corp. of Am.*, 673 F.3d 323, 330 (4th Cir. 2012)), *cert. denied*, 134 S. Ct. 681 (2013). “A fact is material if it ‘might affect the outcome of the suit under the governing law.’” *Id.* (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). Accordingly, “the mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment” *Anderson*, 477 U.S. at 247-48. The court must view the evidence in the light most favorable to the nonmoving party, *Tolan v. Cotton*, 134 S. Ct. 1861, 1866 (2014) (per curiam), and draw all reasonable inferences in that party’s favor, *Scott v. Harris*, 550 U.S. 372, 378 (2007) (citations omitted); *see also Jacobs v. N.C. Admin. Office of the Courts*, 780 F.3d 562, 568–69 (4th Cir. 2015). At the same time, the court must “prevent factually unsupported claims and defenses from proceeding to trial.” *Bouchat v. Balt. Ravens Football Club, Inc.*, 346 F.3d 514, 526 (4th Cir. 2003) (quoting *Drewitt v. Pratt*, 999 F.2d 774, 778-79 (4th Cir. 2003)).

A. Infringement

“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.” 35 U.S.C. § 271(a). “[T]o find infringement, the accused device must contain ‘each limitation of the claim , either literally or by an equivalent’” *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1379

(Fed. Cir. 2008) (quoting *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1358 (Fed. Cir. 2005)). “[I]nfringement . . . is a question of fact. However, a court may determine infringement on summary judgment when no reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device.” *EMD Millipore Corp. v. AllPure Techs., Inc.*, 768 F.3d 1196, 1201 (Fed. Cir. 2014) (internal citations and quotation marks omitted).

Okin renews its motion for summary judgment on independent claim 1 and dependent claims 2 and 26–28 of the ‘144 patent, arguing that the KDPT005 linear actuator includes the limitations of each of those claims. As Okin contends and Kaidi concedes, the only remaining question of fact as to infringement is whether the KDPT005’s so-called spindle cover constitutes one part of the two-part guide section described in claim 1. (*Compare* Okin’s Renewed Mot. Summ. J. 3, ECF No. 151, *with* Kaidi’s Opp. Renewed Mot. Summ. J. 1, ECF No. 161.) The court previously denied Okin’s motion for summary judgment on that ground, reasoning that genuine questions of material fact as to the function of the spindle cover remained unresolved. (Mem. 8, ECF No. 97.) Okin now argues that developments since that ruling have resolved those lingering questions. Specifically, it highlights Zhu’s deposition testimony that the spindle cover can prevent movement in one direction and the results of the experts’ strain-gauge testing. As explained below, none of that new evidence bears the significance Okin ascribes to it.

Okin first asserts that Zhu’s deposition testimony constitutes a concession that the spindle cover guides the slider. (*See* Okin’s Renewed Mot. Summ. J. 7–9.) Not so. As noted, Zhu testified during his deposition that the spindle cover “can prevent the slider from

moving” in one direction, which he described with reference to a deposition exhibit he had marked by hand. (Zhu Tr. 250:19–21, 12/6/14.) At best, that statement constitutes an admission of fact, although Zhu has attempted to clarify this answer, as discussed above. *See supra* Part I.A. It is not, however, dispositive of the legal question whether the spindle cover guides the slider and thus constitutes one part of the two-part guide section.

Okin next argues that its expert, James Babcock, performed several experiments that confirm that the KDPT005’s spindle cover guides the slider. First, he designed a series of experiments to test whether the slider touches the spindle cover when the KDPT005 is in operation. Babcock applied magic marker to those portions of the spindle cover proximate to the slider before operating the actuator in three different environments: uninstalled in any furniture, installed in a reclining chair, and installed in a reclining chair loaded with 200 pounds of weight distributed over the recliner’s seat and leg rest. (*See* Okin’s Renewed Mot. Summ. J. Ex B, Babcock Report ¶¶ 82–83, 86, ECF No. 151-2.) After each experiment, he observed that a roughly linear swath of magic marker, parallel to the length of the spindle cover, had been scraped off a portion of the component. “The portions . . . where the marker was scraped off,” he surmised, “are those that the slider contacts as it moves along its path.” (*Id.* at ¶ 82.) In the uninstalled environment, a nearly continuous swath of magic marker roughly 0.1 inches wide was removed. (*Id.*) When installed in a reclining chair, that swath was nearly 0.165 inches wide. (*Id.* at ¶ 85.) When the chair was loaded with 200 pounds, the swath again expanded, now to 0.2 inches. (*Id.* at ¶ 88.)

Next, Babcock performed a series of experiments designed to measure the strain on the spindle cover while in operation. He applied to the KDPT005’s spindle cover strain

gauges designed to measure the magnitude of deformation associated with the application of external forces to it. (*See* Babcock Report ¶ 90.) He then installed the linear actuator in a reclining chair and measured strain along the x and y axes of the device (where the z axis represents the linear path of the actuator's slider) when the recliner was empty and when it was loaded with 200 pounds of weight. (*See id.* at ¶ 96.) He observed strain along both axes, which increased when the chair was weighted. (*See id.* at ¶¶ 97–98, 104–105.)

Following Babcock, Okin argues that these tests demonstrate as a matter of law that “the lower guide rail participates in guiding the slider.” (Okin's Renewed Mot. Summ. J. 9.) They do not. At best, Babcock's magic-marker experiment indicates that the slider and spindle cover are in nearly continuous contact when the device is in operation. A jury may well deem that fact probative of the spindle cover's function. But as this court noted at claim construction, (*see* Mem. 7, ECF No. 63), and repeated in its previous memorandum on summary judgment, (*see* Mem. 6, ECF No. 97), continuous contact between the slider and guide section is not necessary for a device to fall within the patent's claims. Nor is it sufficient to demonstrate that the spindle cover participates in guiding the slider it appears to touch. Okin has not argued that contact without force would help guide a moving part.

Nor do Babcock's strain-gauge experiments compel the conclusion that Okin and Babcock draw from them. As Kaidi's expert, Howard, opines in his rebuttal report and as Kaidi repeats in opposition to Okin's motion, Babcock's strain gauges may have registered no more than “loading forces” unrelated to strain generated by the movement of the slider, which Howard describes as “guiding forces.” (*See* Kaidi's Opp. Renewed Mot. Summ. J. 4, ECF No. 161; Kaidi's Opp. Renewed Mot. Summ. J. Ex. B, Howard Report ¶¶ 146–49.) “Loading

forces” arise when weight is applied to an unmoving object, which either moves or resists the force of that weight with an equal and opposite force. (*See* Kaidi’s Opp. Renewed Mot. Summ. J. 4; Howard Report ¶ 146.) “Guiding forces,” by contrast, “are the internal forces that a guide section uses to guide the slider in the proper path.” (Howard Report ¶ 148.) Howard conducted a variation of Babcock’s strain-gauge experiments to evaluate the magnitude of this alleged conflation of “loading forces” and “guiding forces.” Specifically, he compared strain-gauge readings taken from two different installations of the KDPT005. The first, which he assumed matched Babcock’s installation, bolted both ends of the actuator to the reclining chair. That arrangement, he opined, would apply both loading and guiding forces to the device. (*See id.* at ¶ 187.) The second installation, by contrast, mounted one end of the actuator via a pin joint, left the other end free, and attached the slider to a rotating crank, which allegedly allowed the device to pivot and thus eliminated loading forces on it. Although Howard recorded strain in the spindle cover in the first installation, he observed none in the second. (*See id.* at ¶ 197.) Accordingly, he concluded that Babcock’s experiments measured only loading force, not guiding forces. (*See id.* at ¶ 200.)

Okin would have the court ignore Howard’s opinions and experiments on the ground that he premised both on an understanding of the claims different than the one adopted by the court. As noted, however, the magnitude of the inconsistency between Howard’s construction of the claims and that of the court is far less severe than Okin represents. *See supra* Part I.B. Those differences relate to whether each part of the two-part guide section must be “normally functional, remain in contact with the slider/adjuster, and perform the action of guiding at all times.” (Howard Report ¶ 88.) Okin does not explain how such differences undermined

Howard’s strain-gauge experiments—or any of his experiments, for that matter. Accordingly the court will not ignore Howard’s experiments.

Interpreting Babcock’s and Howard’s opinions, and the experiments on which they partially rest, poses quintessential factual questions, which only the jury can answer. Where, as here, “the parties proffer[] conflicting expert opinions, based on different evidence and different methods of testing,” summary judgment is inappropriate. *In re Gabapentin Patent Litig.*, 503 F.3d 1254, 1259–60 (Fed. Cir. 2007). Okin’s motion will thus be denied.

B. Willfulness

Under 35 U.S.C. § 284, Okin seeks treble damages for Kaidi’s alleged infringement. (See Countercl., Prayer for Relief ¶ D, ECF No. 36.) That statute permits such an enhanced award only for “willful” infringement. *See, e.g., In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc). To preclude the possibility of such a hefty judgment, Kaidi seeks partial summary judgment on its alleged willfulness, arguing its conduct was objectively reasonable, not reckless.

Courts assess willfulness via “a two-prong analysis entailing an objective and a subjective inquiry.” *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 769 F.3d 1371, 1381–82 (Fed. Cir. 2014). At the outset,

a patentee must show . . . that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent. The state of mind of the accused infringer is not relevant to this objective inquiry. If this threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.

Seagate, 497 F.3d at 1371 (internal citation omitted). “[G]enerally the ‘objective prong of [this

standard] tends not to be met where an accused infringer relies on a reasonable defense to a charge of infringement.” *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1005–06 (Fed. Cir. 2012) (quoting *Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, 620 F.3d 1305, 1319 (Fed. Cir. 2010)). Put differently, “[i]f the accused infringer’s position is susceptible to a reasonable conclusion of no infringement, th[is] first prong of *Seagate* cannot be met.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1310 (Fed. Cir. 2011).

This threshold question of objective reasonableness “is best decided by the judge as a question of law” *Stryker Corp. v. Zimmer, Inc.*, --- F.3d ---, 2015 WL 1285782, at *8 (Fed. Cir. 2014) (quoting *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1007 (Fed. Cir. 2012)).¹¹ That rule applies most cleanly where an alleged infringer presents a reasonable defense premised entirely on a legal issue, such as claim construction. In those circumstances, “the objective recklessness of such a theory is a purely legal question to be determined by the judge.” *Bard Peripheral*, 682 F.3d at 1007. Where the reasonableness of an alleged infringer’s position is premised “on fact questions . . . or on legal questions dependent on

¹¹ The Federal Circuit’s binding precedent requires a patentee to prove willfulness by “clear and convincing evidence.” *See, e.g., Stryker*, 2015 WL 1285782, at *8 (quoting *Seagate*, 497 F.3d at 1371). Recently, however, *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, rejected the Federal Circuit’s application of that evidentiary standard to a parallel statute, 35 U.S.C. § 285, authorizing fee shifting in exceptional patent-infringement cases. 134 S. Ct. 1749, 1752–53 (2014). Instead, *Octane Fitness* held that the preponderance of the evidence standard should apply, reasoning that it “is the ‘standard generally applicable in civil actions’” and nothing in the statute justified any departure from that default rule. *Id.* at 1758 (quoting *Hermant & MacLean v. Huddleston*, 459 U.S. 375, 390 (1983)); *see also Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744, 1746–47 (2014) (replacing the Federal Circuit’s de novo standard of review for fee-shifting determinations under § 285 with the abuse-of-discretion standard, which is generally applicable to similar statutes). The Federal Circuit “has not yet addressed whether” recent Supreme Court case law “altered the standard of review under which [it] analyzes the objective prong of willfulness.” *Stryker*, 2015 WL 1285782, at *8 n.6. But the Federal Circuit has long treated the standard for fee-shifting under 35 U.S.C. § 285 as “identical to” the willfulness standard for enhanced damages under 35 U.S.C. § 285. *Old Reliable Wholesale, Inc. v. Cornell Corp.*, 635 F.3d 539, 544 (Fed. Cir. 2011) (quoting *iLOR, LLC v. Google, Inc.*, 631 F.3d 1372, 1377 (Fed. Cir. 2011)). And several judges on the Federal Circuit have counseled reconsideration of the willfulness standard in light of *Octane Fitness*. *See Halo Elecs., Inc. v. Pulse Elecs., Inc.*, --- F.3d ---, 2015 WL 1283767, at *5 (Fed. Cir. 2015) (O’Malley, J., dissenting from the denial of rehearing en banc); *Halo Elecs.*, 769 F.3d at 1385 (O’Malley, J., concurring). The uncertain state of the law does not affect this case, which would be decided identically under either standard.

the underlying facts,” however, the respective roles of judge and jury are more closely intertwined. *Id.* For example, the court, at its discretion, “may . . . allow the jury to determine the underlying facts relevant to the [objective reasonableness of a proposed infringement] defense in the first instance,” leaving for itself “the ultimate legal question of whether a reasonable person would have considered there to be a high likelihood of infringement of a valid patent” *Id.* at 1008.

The nature of the alleged infringer’s putatively reasonable defense—whether that defense is purely legal or a mixed question of fact and law—thus affects the propriety of summary judgment as to willfulness. While some courts have resolved willfulness claims before trial, others have deferred the matter pending the full presentation of evidence. *See Abbott Biotechnology Ltd v. Centocor Ortho Biotech, Inc.*, 35 F. Supp. 3d 163, 181–82 (D. Mass. 2014) (collecting cases). If willfulness turns “either in whole or in part on factual questions,” then “[d]elaying a ruling until after a jury verdict in the infringement proceedings is . . . more likely to produce an accurate and informed ruling.” *Ill. Tool Works, Inc. v. MOC Prods. Co.*, 946 F. Supp. 2d 1042, 1047 (S.D. Cal. 2012). Those prudential considerations do not apply where the reasonableness of the alleged infringer’s conduct turns wholly on legal question.

Here, the court concludes that Kaidi’s defense is reasonable on two alternative grounds, and thus need not address the subjective component of the willfulness inquiry. Kaidi’s reasonable construction of the patent—which the court ultimately rejected—would have insulated it from liability. Because claim construction is an entirely legal question, there is no need to await the full presentation of evidence. In the alternative, Kaidi’s theory as to why it has not infringed the patent, even under the court’s construction of its claims, is also reasonable. In

the normal case, prudence might counsel deferring ruling on that basis until the close of evidence. Here, however, it serves only as an alternative basis of decision, confirming the propriety of a conclusion the court would otherwise endorse. For that reason, the court addresses the reasonableness of Kaidi's fact-based infringement defense now.

i. Reasonableness of Kaidi's claim construction

Kaidi contends that the reasonableness of its interpretation of the patent precludes enhanced damages. During the claim construction process, Kaidi argued that the phrase "two parts" in claim 1 of the patent referred to "two portions having the same material and substantially the same contour shape and thickness." (Kaidi's Opening Claim Construction Br. 16, ECF No. 46.) That interpretation derived from Kaidi's reading of the specifications, which depicted only embodiments of the device in which the two-parts of the guide section were "the same contour shape and thickness,"¹² (*see* '144 Patent figs. 2–4, 10), as well as extrinsic evidence as to the meaning of the phrase for a person of ordinary skill in the art. (*See* Kaidi's Opening Claim Construction Brief 16–19.) Indeed, the specification explained that, in one of those embodiments, a slider "surrounds [the] guide sections . . . with the same shape," arguably implying that the guide sections matched one another as well as the slider that surrounds them ('144 Patent col. 4, ll. 66–67.) And the specification described one "further development of the invention," in which "the guide sections display a shell-shaped, fret-like cross-section . . ." (*Id.* at col. 2, ll. 26–27.)

¹² In none of those depictions are the two parts of the guide section identical. In each, the lower of the two sections includes what the specification describes as a "longitudinal channel . . . for accepting limit switches." (*Id.* at col. 5, l. 32.) That variation is consistent with Kaidi's proposed construction, which required the two parts of the guide section to bear "*substantially* the same shape." (Kaidi's Opening Claim Construction Br. 16 (emphasis added).)

The court concluded that Kaidi's interpretation of the claim was wrong, finding that the term "two parts" required no construction on the ground that its meaning was plain, even to laypersons. (*See* Mem. 6, ECF No. 63.) But Kaidi's arguments from the specification were not baseless, for the claims of a patent "must be read in view of the specification, of which they are a part." *Phillips*, 415 F.3d at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). Had the court perceived a greater measure of ambiguity in the claim language or intrinsic evidence that the disclosed embodiments were coextensive with the claims, then Kaidi's contentions might have carried greater weight. But the court refused to endorse an interpretation that would "import[] limitations from the specification into the claim" where the patent itself described the embodiments as no more than *alternative* exemplars of the invention. *Id.* at 1323. Indeed, one of the phrases Kaidi emphasized describes an embodiment as but one "further development of the invention," suggesting that there are multiple possible embodiments of the device and that the disclosed embodiments are not co-extensive with the claims.

Kaidi's argument was nonetheless reasonable. As the Federal Circuit has recognized, "the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification in to the claim can be a difficult one to apply in practice." *Id.* at 1323. The court will not describe as reckless Kaidi's failure to discern the "fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification." *Id.* (quoting *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186–87 (Fed. Cir. 1998)). Because the patent is susceptible to Kaidi's reading of it, that interpretation is reasonable. *See, e.g., Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1374 (Fed. Cir.

2008) (affirming the district court’s conclusion of no willfulness where the patent “was susceptible to a reasonable construction under which [the infringer’s] products did not infringe”).

Had Kaidi convinced the court that its construction of the claims was correct, it would have been a complete defense to infringement. The two parts that, according to Okin, constitute the guide section of the KDPT005 do not resemble one another. Okin does not—indeed, cannot—assert that the KDPT005 infringed the ‘144 patent on Kaidi’s interpretation of the claims. The reasonableness of that interpretation precludes enhanced damages for infringement.

ii. Reasonableness of Kaidi’s defense

Even on the court’s construction of the patent, Kaidi’s infringement defense is objectively reasonable. The court’s repeated refusal to grant Okin summary judgment all but decides whether Kaidi has an objectively reasonable defense to its alleged infringement. *See, e.g., Solvay v. S.A. v. Honeywell Specialty Materials LLC*, 827 F. Supp. 2d 358, 366 (D. Del. 2011) (granting summary judgment of no willfulness where the court’s previous summary judgment determination credited the defense). *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, for example, affirmed the district court’s grant of judgment as a matter of law, after the close of evidence at trial, that an infringer’s reasonable equivalence defense precluded enhanced damages, even though the jury ultimately held the infringer liable. 567 F.3d 1314, 1337 (Fed. Cir. 2009). That case considered whether a screw used in spinal surgeries that attached to a receiver member with a conical shape infringed, under the doctrine of equivalents, a patent claiming a similar screw with a spherically shaped receiver. *Id.* at 1320. Although the evidence tended to show that the spherical and conical receivers functioned differently, it also demonstrated that they might be interchangeable, such that “[t]he jury could have reasonably

found for either party on the question of equivalence.” *Id.* at 1336–37. Indeed, the Federal Circuit had previously reversed the district court’s grant of summary judgment on that question of liability in favor of the infringer, remanding the case for trial. *See id.* at 1336. In affirming the district court’s subsequent conclusion that infringement was not willful as a matter of law, *DePuy Spine* reasoned that “the question of equivalence was a close one” that “requires an intensely factual inquiry.” *Id.* at 1337 (quoting *Vehicular Tech. Corp. v. Titan Wheel Int’l, Inc.*, 212 F.3d 1377, 1381 (Fed. Cir. 2000)).

Here, as in *DePuy Spine*, resolution of Okin’s infringement claim turns on close, intensely factual questions. Although *DePuy Spine* warned that submitting an issue “to a jury does not automatically immunize an accused infringer from a finding of willful infringement,” the factual dispute here is not merely genuine and material but also quite close. It turns on a hard-fought battle of experts over the actual function of the KDPT005’s spindle cover, a battle based on the persuasiveness of competing experiments. Given the closeness of the factual disputes in this case, a jury could not conclude that Kaidi’s defense is objectively unreasonable.

* * *

Accordingly, the court will grant to Kaidi partial summary judgment on the question of willfulness. That determination also resolves several motions in limine. Kaidi’s motion in limine to preclude Okin from presenting evidence of willfulness, (ECF No. 139), will be denied as moot. Okin has also moved to preclude on the basis of relevance, prejudice, and jury confusion the presentation of evidence underlying Kaidi’s unfair competition claims (which have been dismissed); evidence that Okin withdrew its complaint from the International Trade Commission (“ITC”) and moved to terminate the investigation triggered by that complaint; and

evidence concerning whether and to what extent Okin marked its Betadrives with warnings that the product was patented. (*See* ECF Nos. 127, 128, 129.) Kaidi opposes each of those motions only to the extent that the evidence bears on the question of willfulness. (*See* ECF Nos. 156, 157, 164.)¹³ The grant of partial summary judgment on willfulness moots those oppositions. Accordingly, Okin's motions in limine concerning evidence underlying Kaidi's unfair competition claims, termination of the ITC proceeding, and its marking of the Betadrive will be granted.

CONCLUSION

For the reasons above, Okin's renewed motion for summary judgment on the question of infringement will be denied. Kaidi's motion for partial summary judgment of no willfulness will be granted. Okin's motion to preclude Zhu from altering his deposition testimony via Federal Rule of Civil Procedure 30(e)(1) will be granted. Okin's motion to preclude Howard from testifying as to an interpretation of the patent inconsistent with this court's claim construction will be granted only as to Howard's opinion that each part of the two-part guide section must be "normally functional, remain in contact with the slider/adjuster, and perform the action of guiding at all times"; it will otherwise be denied. Okin's motion to preclude Kaidi's expert from testifying as to testing of the accused device allegedly inconsistent with the court's claim construction will be denied. Kaidi's motion to preclude the presentation of evidence concerning willful infringement will be denied as moot. Okin's motion to preclude evidence underlying Kaidi's unfair competition claims will be granted. Its motion to preclude evidence concerning

¹³ As to Okin's motion to exclude evidence underlying Kaidi's now-dismissed unfair competition claims, Kaidi opposes the motion "to the extent" those facts "are relevant to other issues to be tried (such as willfulness)." (ECF No. 156.) To the extent Okin's motion would exclude evidence bearing on relevant matters other than willfulness, Kaidi has not identified those matters. Accordingly, the court interprets Kaidi's opposition as limited to willfulness.

the ITC proceeding's termination will be granted. And its motion to preclude evidence concerning the markings on its Betadrives will be granted.

A separate order follows.

April 29, 2015
Date

/s/
Catherine C. Blake
United States District Judge